

# antitoxintoxin.txt

? e au=gazit, ehud?

Ref	Items	Index-term
E1	85	AU=GAZIT, E.
E2	207	AU=GAZIT, EHUD
E3	0	AU=GAZIT, EHUD?
E4	1	AU=GAZIT, EHUT
E5	2	AU=GAZIT, EMANUEL
E6	39	AU=GAZIT, EPHRAIM
E7	1	AU=GAZIT, EPHRAYIM
E8	4	AU=GAZIT, G
E9	1	AU=GAZIT, G.
E10	10	AU=GAZIT, GADI
E11	1	AU=GAZIT, H
E12	6	AU=GAZIT, H.
E13	5	AU=GAZIT, HERBERT
E14	8	AU=GAZIT, HILLEL
E15	4	AU=GAZIT, HOVAV
E16	8	AU=GAZIT, I
E17	7	AU=GAZIT, I.
E18	1	AU=GAZIT, I. E.
E19	3	AU=GAZIT, I.E.
E20	2	AU=GAZIT, IE
E21	4	AU=GAZIT, IRIT
E22	3	AU=GAZIT, ISRAEL
E23	1	AU=GAZIT, ISRAEL ELIYAHU
E24	1	AU=GAZIT, K.
E25	2	AU=GAZIT, KFIR

Enter PAGE for more

? s e1-e4

	85	AU=GAZIT, E.
	207	AU=GAZIT, EHUD
	0	AU=GAZIT, EHUD?
	1	AU=GAZIT, EHUT
S1	276	S E1-E4

? s s1 and toxin

	276	S1
	1066342	TOXIN
S2	42	S S1 AND TOXIN

? e au=cherny, izhack?

Ref	Items	Index-term
E1	1	AU=CHERNY, IV
E2	27	AU=CHERNY, IZHACK
E3	0	AU=CHERNY, IZHACK?
E4	1	AU=CHERNY, J
E5	8	AU=CHERNY, J. J.
E6	1	AU=CHERNY, J.V.
E7	1	AU=CHERNY, JULIUS
E8	1	AU=CHERNY, L
E9	10	AU=CHERNY, L.
E10	3	AU=CHERNY, LILY
E11	2	AU=CHERNY, LYNN
E12	1	AU=CHERNY, LYNN M.
E13	1	AU=CHERNY, M
E14	10	AU=CHERNY, M.
E15	2	AU=CHERNY, M. L.
E16	2	AU=CHERNY, M. S.
E17	1	AU=CHERNY, MAIA
E18	1	AU=CHERNY, MAIA M.

# antitoxintoxin.txt

E19 1 AU=CHERNY, MATHEW A.  
 E20 15 AU=CHERNY, N.  
 E21 7 AU=CHERNY, N. E.  
 E22 6 AU=CHERNY, N. I.  
 E23 6 AU=CHERNY, N. V.  
 E24 6 AU=CHERNY, N.E.  
 E25 1 AU=CHERNY, N.F.  
 Enter PAGE for more

? s e1-e3  
 1 AU=CHERNY, IV  
 27 AU=CHERNY, IZHACK  
 0 AU=CHERNY, IZHACK?  
 S3 28 S E1-E3

? s s3 and antitoxin  
 28 S3  
 21712 ANTITOXIN  
 S4 22 S S3 AND ANTITOXIN

? t s4/3,k/1-22

>>>W: KWIC option is not available in file(s): 399

4/3,K/1 (Item 1 from file: 24) Links

Fulltext available through: STIC Full Text Retrieval Options

CSA Life Sciences Abstracts

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0003013616 IP Accession No: 7288149

The yefM-yoeB Toxin-Antitoxin Systems of Escherichia coli and Streptococcus pneumoniae: Functional and Structural Correlation

Nieto, Concha; Cherny, Izhack; Khoo, Seok Kooi; de Lacoba, Mario Garcia; Chan, Wai Ting; Yeo, Chew Chieng; Gazit, Ehud; Espinosa, Manuel Centro de Investigaciones Biologicas, CSIC, Madrid, Spain. Department of Molecular Microbiology and Biotechnology, Tel Aviv University, Tel Aviv 69978, Israel. Department of Biotechnology, Malaysia University of Science and Technology, Petaling Jaya, Malaysia

Journal of Bacteriology , v 189 , n 4 , p 1266-1278 , February 2007

Publication Date: 2007

Publisher: American Society for Microbiology, 1752 N Street N.W. Washington, DC 20036 USA, [URL:http://www.asm.org/]

Document Type: Journal Article

Record Type: Abstract

Language: English

Summary Language: English

ISSN: 0021-9193

Electronic Issn: 1098-5530

File Segment: Bacteriology Abstracts (Microbiology B)

The yefM-yoeB Toxin-Antitoxin Systems of Escherichia coli and Streptococcus pneumoniae: Functional and Structural Correlation

Nieto, Concha; Cherny, Izhack; Khoo, Seok Kooi; de Lacoba, Mario Garcia; Chan, Wai Ting; Yeo, Chew Chieng; Gazit...

Abstract:

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4/3,K/2 (Item 2 from file: 24) Links

Fulltext available through: STIC Full Text Retrieval Options

CSA Life Sciences Abstracts

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0002893868 IP Accession No: 6517911

The YoeB Toxin Is a Folded Protein That Forms a Physical Complex with the Unfolded YefM Antitoxin: Implications for a structural-based differential stability of toxin-antitoxin systems

Cherny, Izhack; Rockah, Liat; Gazit, Ehud Department of Molecular Microbiology and Biotechnology, George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv 69978, Israel

Journal of Biological Chemistry , v 280 , n 34 , p 30063-30072 , August 2005

Publication Date: 2005

Publisher: American Society for Biochemistry and Molecular Biology, 9650 Rockville Pike Bethesda MD 20814-3996 USA, [mailto:asbmb@asbmb.faseb.org], [URL:http://www.jbc.org]

Document Type: Journal Article

Record Type: Abstract

Language: English

Summary Language: English

ISSN: 0021-9258

Electronic ISSN: 1083-351X

File Segment: Bacteriology Abstracts (Microbiology B); Genetics Abstracts

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4/3,K/3 (Item 3 from file: 24) Links

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CSA Life Sciences Abstracts

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0002809071 IP Accession No: 6517911

The YoeB Toxin Is a Folded Protein That Forms a Physical Complex with the Unfolded YefM Antitoxin: Implications for a structural-based differential stability of toxin-antitoxin systems

Cherny, Izhack; Rockah, Liat; Gazit, Ehud Department of Molecular Microbiology and Biotechnology, George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv 69978, Israel  
Journal of Biological Chemistry , v 280 , n 34 , p 30063-30072 , August 2005  
Publication Date: 2005  
Publisher: American Society for Biochemistry and Molecular Biology, 9650 Rockville Pike Bethesda MD 20814-3996 USA, [mailto:asbmb@asbmb.faseb.org], [URL:http://www.jbc.org]

Document Type: Journal Article  
Record Type: Abstract  
Language: English  
Summary Language: English  
ISSN: 0021-9258  
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File Segment: Bacteriology Abstracts (Microbiology B); Genetics Abstracts  
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4/3,K/4 (Item 1 from file: 76) Links

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Environmental Sciences

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0001970608 IP Accession No: 7288149

The yefM-yoeB Toxin-Antitoxin Systems of Escherichia coli and Streptococcus pneumoniae: Functional and Structural Correlation

Nieto, Concha; Cherny, Izhack; Khoo, Seok Kooi; de Lacoba, Mario Garcia; Chan, Wai Ting; Yeo, Chew Chieng; Gazit, Ehud; Espinosa, Manuel Centro de Investigaciones Biologicas, CSIC, Madrid, Spain. Department of Molecular Microbiology and Biotechnology, Tel Aviv University, Tel Aviv 69978, Israel. Department of Biotechnology, Malaysia University of Science and Technology, Petaling Jaya, Malaysia

Journal of Bacteriology , v 189 , n 4 , p 1266-1278 , February 2007

Publication Date: 2007

Publisher: American Society for Microbiology, 1752 N Street N.W. Washington, DC 20036 USA, [URL:http://www.asm.org/]

Document Type: Journal Article  
Record Type: Abstract  
Language: English  
Summary Language: English  
ISSN: 0021-9193

Electronic Issn: 1098-5530

File Segment: Bacteriology Abstracts (Microbiology B)

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4/3,K/5 (Item 2 from file: 76) Links

Fulltext available through: STIC Full Text Retrieval Options

Environmental Sciences

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0001902993 IP Accession No: 6517911

The YoeB Toxin Is a Folded Protein That Forms a Physical Complex with the Unfolded YefM Antitoxin: Implications for a structural-based differential stability of toxin-antitoxin systems

Cherny, Izhack; Rockah, Liat; Gazit, Ehud Department of Molecular Microbiology and Biotechnology, George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv 69978, Israel

Journal of Biological Chemistry , v 280 , n 34 , p 30063-30072 , August 2005

Publication Date: 2005

Publisher: American Society for Biochemistry and Molecular Biology, 9650 Rockville Pike Bethesda MD 20814-3996 USA, [mailto:asbmb@asbmb.faseb.org], [URL:http://www.jbc.org]

Document Type: Journal Article

Record Type: Abstract

Language: English

Summary Language: English

ISSN: 0021-9258

Electronic Issn: 1083-351X

File Segment: Bacteriology Abstracts (Microbiology B)

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4/3,K/6 (Item 3 from file: 76) Links

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Environmental Sciences

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0001838986 IP Accession No: 6517911

The YoeB Toxin Is a Folded Protein That Forms a Physical Complex with the Unfolded YefM Antitoxin: Implications for a structural-based differential stability of toxin-antitoxin systems

Cherny, Izhack; Rockah, Liat; Gazit, Ehud Department of Molecular Microbiology and Biotechnology, George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv 69978, Israel

Journal of Biological Chemistry , v 280 , n 34 , p 30063-30072 , August 2005

Publication Date: 2005

Publisher: American Society for Biochemistry and Molecular Biology, 9650 Rockville Pike Bethesda MD 20814-3996 USA, [mailto:asbmb@asbmb.faseb.org],

[URL:http://www.jbc.org]

Document Type: Journal Article

Record Type: Abstract

Language: English

Summary Language: English

ISSN: 0021-9258

Electronic Issn: 1083-351X

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4/3,K/7 (Item 1 from file: 98) Links

General Sci Abs

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6009748 H.W. Wilson Record Number: BGSA07151710

Structural and Thermodynamic Characterization of the Escherichia coli RelBE

Toxin-Antitoxin System: Indication for a Functional Role of Differential Stability

Cherny, Izhack  
Overgaard, Martin; Borch, Jonas  
Biochemistry ( American Chemical Society ) v. 46 no43 (October 30 2007) p. 12152-63  
Document Type: Feature Article  
Special Features: Bibliographic Footnote Graph Illustration Table ISSN: 0006-2960  
Language: English  
Country Of Publication: United States  
Structural and Thermodynamic Characterization of the Escherichia coli RelBE  
Toxin-Antitoxin System: Indication for a Functional Role of Differential Stability

Cherny, Izhack

4/3,K/8 (Item 2 from file: 98) Links  
General Sci Abs  
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5962625 H.W. Wilson Record Number: BGSA07109307  
The yefM-yoeB Toxin-Antitoxin Systems of Escherichia coli and Streptococcus  
pneumoniae: Functional and Structural Correlation

Nieto, Concha  
Cherny, Izhack; Khoo, Seok Kooi  
Journal of Bacteriology v. 189 no4 (February 2007) p. 1266-78  
Document Type: Feature Article  
Special Features: Bibliography Graph Illustration Table ISSN: 0021-9193  
Language: English  
Country Of Publication: United States  
The yefM-yoeB Toxin-Antitoxin Systems of Escherichia coli and Streptococcus  
pneumoniae: Functional and Structural Correlation

Cherny, Izhack...

4/3,K/9 (Item 1 from file: 143) Links  
Biol. & Agric. Index  
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2129480 H.W. Wilson Record Number: BBAI07163431  
Structural and Thermodynamic Characterization of the Escherichia coli RelBE  
Toxin-Antitoxin System: Indication for a Functional Role of Differential Stability

Cherny, Izhack  
Overgaard, Martin; Borch, Jonas  
Biochemistry (American Chemical Society) v. 46 no43 (October 30 2007) p. 12152-63  
ISSN: 0006-2960  
Structural and Thermodynamic Characterization of the Escherichia coli RelBE  
Toxin-Antitoxin System: Indication for a Functional Role of Differential Stability  
Cherny, Izhack

4/3,K/10 (Item 2 from file: 143) Links  
Biol. & Agric. Index  
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2077317 H.W. Wilson Record Number: BBAI07110528  
The yefM-yoeB Toxin-Antitoxin Systems of Escherichia coli and Streptococcus  
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Nieto, Concha  
Cherny, Izhack; Khoo, Seok Kooi  
Journal of Bacteriology v. 189 no4 (February 2007) p. 1266-78  
ISSN: 0021-9193  
The yefM-yoeB Toxin-Antitoxin Systems of Escherichia coli and Streptococcus  
pneumoniae: Functional and Structural Correlation  
Cherny, Izhack...

4/3,K/11 (Item 3 from file: 143) Links

Biol. & Agric. Index

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1881329 H.W. Wilson Record Number: BBAI05152088

The YoeB Toxin Is a Folded Protein That Forms a Physical Complex with the Unfolded YefM Antitoxin. Implications for a Structural-based Differential Stability of Toxin-antitoxin Systems

Cherny, Izhack

Rockah, Liat; Gazit, Ehud

The Journal of Biological Chemistry v. 280 no34 (August 26 2005) p. 30063-72

ISSN: 0021-9258

...YoeB Toxin Is a Folded Protein That Forms a Physical Complex with the Unfolded YefM Antitoxin. Implications for a Structural-based Differential Stability of Toxin-antitoxin Systems

Cherny, Izhack

4/3,K/12 (Item 4 from file: 143) Links

Biol. & Agric. Index

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1747987 H.W. Wilson Record Number: BBAI04118529

The YefM Antitoxin Defines a Family of Natively Unfolded Proteins: Implications as a Novel Antibacterial Target

Cherny, Izhack

Gazit, Ehud

The Journal of Biological Chemistry v. 279 no9 (Feb. 27 2004) p. 8252-61

Document Type: Feature Article ISSN: 0021-9258

The YefM Antitoxin Defines a Family of Natively Unfolded Proteins: Implications as a Novel Antibacterial Target

Cherny, Izhack

4/3,K/13 (Item 1 from file: 399) Links

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147516306 CA: 147(25)516306m JOURNAL

Structural and Thermodynamic Characterization of the Escherichia coli RelBE Toxin-Antitoxin System: Indication for a Functional Role of Differential Stability  
Author: Cherny, Izhack; Overgaard, Martin; Borch, Jonas; Bram, Yaron; Gerdes, Kenn;

Gazit, Ehud

Location: Department of Molecular Microbiology and Biotechnology, George S. Wise Faculty of Life Sciences, Tel Aviv University, 69978, Tel Aviv-Jaffa, Israel

Journal: Biochemistry

Date: 2007

Volume: 46 Number: 43 Pages: 12152-12163

CODEN: BICHAW

ISSN: 0006-2960

Publisher Item Identifier: 0006-2960(70)01037-1

Language: English

Publisher: American Chemical Society

4/3,K/14 (Item 2 from file: 399) Links

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147482564 CA: 147(23)482564b CONFERENCE PROCEEDING



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Bacterial toxin-antitoxin systems as targets for the development of novel antibiotics

Author: Alonso, Juan C.; Balsa, Dolores; Cherny, Izhack; Christensen, Susanne K.; Espinosa, Manuel; Francuski, Djordje; Gazit, Ehud; Gerdes, Kenn; Hitchin, Ed; Martin, M. Teresa; Nieto, Concepcion; Overweg, Karin; Pellicer, Teresa; Saenger, Wolfram; Welfle, Heinz; Welfle, Karin; Wells, Jerry  
Location: Department of Microbial Biotechnology, Centro Nacional de Biotecnologia, CSIC, Madrid, Spain, 28049  
Journal: Enzyme-Mediated Resist. Antibiot.  
Editor: Bonomo, Robert A. (Ed), Tolmasky, Marcelo (Ed),  
Date: 2007  
Pages: 313-329  
CODEN: 69JIC6  
Language: English  
Publisher: American Society for Microbiology , Washington, D. C

4/3,K/15 (Item 3 from file: 399) Links

Fulltext available through: STIC Full Text Retrieval Options

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146200059 CA: 146(11)200059w JOURNAL  
The yefM-yoeB toxin-antitoxin systems of Escherichia coli and Streptococcus pneumoniae: functional and structural correlation  
Author: Nieto, Concha; Cherny, Izhack; Khoo, Seok Kooi; Garcia de Lacoba, Mario; Chan, Wai Ting; Yeo, Chew Chieng; Gazit, Ehud; Espinosa, Manuel  
Location: Centro de Investigaciones Biologicas, CSIC, Madrid, Spain,  
Journal: J. Bacteriol.  
Date: 2007  
Volume: 189 Number: 4 Pages: 1266-1278  
CODEN: JOBAAY  
ISSN: 0021-9193  
Language: English  
Publisher: American Society for Microbiology

4/3,K/16 (Item 4 from file: 399) Links

Fulltext available through: STIC Full Text Retrieval Options

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143223992 CA: 143(13)223992x JOURNAL  
The YoeB Toxin Is a Folded Protein That Forms a Physical Complex with the Unfolded YefM Antitoxin: implications for a structural-based differential stability of toxin-antitoxin systems  
Author: Cherny, Izhack; Rockah, Liat; Gazit, Ehud  
Location: George S. Wise Faculty of Life Sciences, Department of Molecular Microbiology and Biotechnology, Tel Aviv University, 69978, Tel Aviv-Jaffa, Israel  
Journal: J. Biol. Chem.  
Date: 2005  
Volume: 280 Number: 34 Pages: 30063-30072  
CODEN: JBCHA3  
ISSN: 0021-9258  
Language: English  
Publisher: American Society for Biochemistry and Molecular Biology

4/3,K/17 (Item 5 from file: 399) Links

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142367629 CA: 142(20)367629m PATENT  
Page 9

antitoxintoxin.txt

Antibacterial agents disrupting toxin-antitoxin binding and methods of identifying and utilizing such agents

Inventor (Author): Gazit, Ehud; Cherny, Izhack

Location: Israel

Assignee: Ramot at Tel Aviv University Ltd.

Patent: PCT International ; WO 200531362 A2 Date: 20050407

Application: WO 2004IL898 (20040927) \*US 2003PV507488 (20031002) \*US 2004PV550334 (20040308)

Pages: 108 pp.

CODEN: PIXXD2

Language: English

Patent Classifications:

Class: G01N-033/68A

Designated Countries: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NA; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM; ZW

Designated Regional: BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ; TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

4/3,K/18 (Item 6 from file: 399) Links

Fulltext available through: STIC Full Text Retrieval Options

CA SEARCH(R)

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140334320 CA: 140(21)334320j JOURNAL

The YefM Antitoxin Defines a Family of Natively Unfolded Proteins: Implications as a Novel Antibacterial Target

Author: Cherny, Izhack; Gazit, Ehud

Location: George S. Wise Faculty of Life Sciences, Department of Molecular Microbiology and Biotechnology, Tel-Aviv University, 69978, Tel-Aviv, Israel

Journal: J. Biol. Chem.

Date: 2004

Volume: 279 Number: 9 Pages: 8252-8261

CODEN: JBCHA3

ISSN: 0021-9258

Language: English

Publisher: American Society for Biochemistry and Molecular Biology

4/3,K/19 (Item 1 from file: 8) Links

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0018022974 E.I. COMPENDEX No: 20074510904220

Structural and thermodynamic characterization of the Escherichia coli RelBE toxin-antitoxin system: Indication for a functional role of differential stability

Cherny, Izhack; Overgaard, Martin; Borch, Jonas; Bram, Yaron; Gerdes, Kenn; Gazit, Ehud

Corresp. Author/Affil: Gazit, E.: Department of Molecular Microbiology and Biotechnology, George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv 69978, Israel

Corresp. Author email: ehudg@post.tau.ac.il

Biochemistry ( Biochemistry ) ( United States ) 2007 46/43 (12152-12163)

Publication Date: 20071030

Publisher: American Chemical Society

CODEN: BICHA ISSN: 0006-2960

Item Identifier (DOI): 10.1021/bi701037e

antitoxintoxin.txt

Document Type: Article; Journal Record Type: Abstract  
Treatment: L; (Literature review); X; (Experimental)  
Language: English Summary Language: English  
Number of References: 63

Structural and thermodynamic characterization of the Escherichia coli RelBE toxin-antitoxin system: Indication for a functional role of differential stability

Cherny, Izhack; Overgaard, Martin; Borch, Jonas; Bram, Yaron; Gerdes, Kenn; Gazit, Ehud

The RelE and RelB proteins constitute the RNA interferase (toxin) and its cognate inhibitor (antitoxin) components of the Escherichia coli relBE toxin-antitoxin system. Despite the well-described functionality and physiological activity of this system in E. coli... components from E. coli in solution, both separately and in their complexed state. The RelB antitoxin, an alpha-helical protein according to circular dichroism and infrared spectroscopy, forms oligomers in solution...

Descriptors:

4/3,K/20 (Item 2 from file: 8) Links

Fulltext available through: STIC Full Text Retrieval Options

Ei Compendex(R)

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0016688330 E.I. COMPENDEX No: 2005369345704

The YoeB toxin is a folded protein that forms a physical complex with the unfolded YefM antitoxin: Implications for a structural-based differential stability of toxin-antitoxin systems

Cherny, Izhack; Rockah, Liat; Gazit, Ehud

Corresp. Author/Affil: Gazit, E.: Dept. of Molecular Microbiology and Biotechnology, Tel Aviv University, Tel Aviv 69978, Israel

Corresp. Author email: ehudg@post.tau.ac.il

Journal of Biological Chemistry ( J. Biol. Chem. ) ( United States ) 2005 280/34 (30063-30072)

Publication Date: 20050826

Publisher: American Society for Biochemistry and Molecular Biology Inc.

CODEN: JBCHA ISSN: 0021-9258

Item Identifier (DOI): 10.1074/jbc.M506220200

Document Type: Article; Journal Record Type: Abstract

Treatment: X; (Experimental)

Language: English Summary Language: English

Number of References: 55

...YoeB toxin is a folded protein that forms a physical complex with the unfolded YefM antitoxin: Implications for a structural-based differential stability of toxin-antitoxin systems

Cherny, Izhack; Rockah, Liat; Gazit, Ehud

The chromosomal YoeB-YefM toxin-antitoxin module common to numerous strains of bacteria is presumed to have a significant role in survival under stringent conditions. Recently we showed that the purified YefM antitoxin is a natively unfolded protein, as we previously reported for the Phd antitoxin in the P1 phage Doc-Phd toxin-antitoxin system. Here we report the purification and structural properties of the YoeB toxin and present... Q-Sepharose ion-exchange chromatography implying the formation of a YoeB-YefM complex. The unstable antitoxin was removed from the mixture by natural proteolysis, and the residual YoeB protein was purified ... thermal unfolding at temperatures up to 56 (deg)C. The thermodynamic features of the toxin-antitoxin complex were similar. Taken together, our results support the notion of a correlation between differential physiological and structural stability in toxin- antitoxin modules. (c) 2005 by The American Society for Biochemistry and Molecular Biology, Inc.

Descriptors:

Identifiers: Antitoxin; Conformational stability; Ion exchange chromatography; Structural stability

4/3,K/21 (Item 3 from file: 8) Links  
Fulltext available through: STIC Full Text Retrieval Options  
Ei Compendex(R)  
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0015854420 E.I. COMPENDEX No: 2004128066957  
The YefM antitoxin defines a family of natively unfolded proteins: Implications as a novel antibacterial target

Cherny, Izhack; Gazit, Ehud  
Corresp. Author/Affil: Gazit, E.: Dept. of Molec. Microbiol./Biotech., Tel-Aviv University, Green Bldg., Ramat-Aviv, Tel-Aviv 69978, Israel  
Corresp. Author email: ehudg@post.tau.ac.il  
Journal of Biological Chemistry ( J. Biol. Chem. ) ( United States ) 2004 279/9 (8252-8261)  
Publication Date: 20040227  
Publisher: American Society for Biochemistry and Molecular Biology Inc.  
CODEN: JBCHA ISSN: 0021-9258  
Item Identifier (DOI): 10.1074/jbc.M308263200  
Document Type: Article; Journal Record Type: Abstract  
Treatment: T; (Theoretical)  
Language: English Summary Language: English  
Number of References: 32  
The YefM antitoxin defines a family of natively unfolded proteins: Implications as a novel antibacterial target

Cherny, Izhack; Gazit, Ehud  
...well understood. Here, we demonstrate that the Escherichia coli YefM protein is a natively unfolded antitoxin, lacking secondary structure even at low temperature or in the presence of a stabilizing agent ... Indeed, a pair-constrained bioinformatic analysis facilitated the definite determination of novel YefM-YoeB toxin-antitoxin systems in a large number of bacteria including major pathogens such as Staphylococcus aureus, Streptococcus...  
Descriptors:

4/3,K/22 (Item 1 from file: 149) Links  
TGG Health&wellness DB(SM)  
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03335715 Supplier Number: 163707106 (USE FORMAT 7 OR 9 FOR FULL TEXT )  
The yefM-yoeB toxin-antitoxin systems of Escherichia coli and Streptococcus pneumoniae: functional and structural correlation.(Author abstract)

Nieto, Concha; Cherny, Izhack; Khoo, Seok Kooi; de Lacoba, Mario Garcia; Chan, Wai Ting; Yeo, Chew Chieng; Gazit, Ehud; Espinosa, Manuel  
Journal of Bacteriology , 189 , 3-4 , 1266(13)  
Feb ,  
2007  
Document Type: Author abstract Publication Format: Magazine/Journal  
ISSN: 0021-9193  
Language: English  
Record Type: Abstract Target Audience: Academic  
The yefM-yoeB toxin-antitoxin systems of Escherichia coli and Streptococcus pneumoniae: functional and structural correlation.(Author abstract)

...Cherny, Izhack  
Author Abstract: Toxin-antitoxin loci belonging to the yefM-yoeB family are located in the chromosome or in some... We cloned the yefM-yoeB locus of Streptococcus pneumoniae, and these genes encode bona fide antitoxin (Yef(M.sub.Spn)) and toxin (Yoe(B.sub.Spn)) products. We showed that overproduction... 12 strains. The Yoe(B.sub.Spn)-mediated toxicity could be reversed by the cognate antitoxin, Yef(M.sub.Spn), but not by overproduction of the E. coli YefM antitoxin. The

# antitoxintoxin.txt

pneumococcal proteins were purified and were shown to interact with each other both in vitro and in vivo. Far-UV circular dichroism analyses indicated that the pneumococcal antitoxin was partially, but not totally, unfolded and was different than its E. coli counterpart. Molecular... ..whereas the antitoxins appeared to be specifically designed for each bacterial locus; thus, the toxin-antitoxin interactions were adapted to the different bacterial environmental conditions. Both structural features, folding and the...

Text:

? d s

Set	Items	Description
S1	276	S E1-E4
S2	42	S S1 AND TOXIN
S3	28	S E1-E3
S4	22	S S3 AND ANTITOXIN

? s s2

S5	42	S S2
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? s s5 and toxin

	42	S5
	1066342	TOXIN
S6	42	S S5 AND TOXIN

? s s6 and toxin

	42	S6
	1066342	TOXIN
S7	42	S S6 AND TOXIN

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>>>W: Duplicate detection is not supported for File 393.  
Duplicate detection is not supported for File 391.  
Records from unsupported files will be retained in the RD set.  
S8 22 RD (UNIQUE ITEMS)

? t s8/3,k/1-22

>>>W: KWIC option is not available in file(s): 399  
8/3,K/1 (Item 1 from file: 24) Links  
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CSA Life Sciences Abstracts  
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0003502673 IP Accession No: 8820610  
Crystallization of Doc and the Phd-Doc toxin-antitoxin complex

Garcia-Pino, Abel; Dao-Thi, Minh-Hoa; Gazit, Ehud; Magnuson, Roy David; Wyns, Lode;  
Loris, Remy Laboratorium voor Ultrastructuur, Vrije Universiteit Brussel, Pleinlaan  
2, B-1050 Brussel, Belgium, [mailto:agarciap@vub.ac.be]  
Acta Crystallographica Section F , v 64 , n 11 , p 1034-1038 , November 1, 2008  
Publication Date: 2008  
Publisher: Blackwell Publishing Ltd., 9600 Garsington Road

Document Type: Journal Article

Record Type: Abstract

Language: English

Summary Language: English

ISSN: 1744-3091

File Segment: Bacteriology Abstracts (Microbiology B)

Crystallization of Doc and the Phd-Doc toxin-antitoxin complex

Garcia-Pino, Abel; Dao-Thi, Minh-Hoa; Gazit, Ehud; Magnuson, Roy David; Wyns, Lode;  
Page 13

Loris, Remy

Abstract:

...its plasmidic form in Escherichia coli and is the archetype of a family of bacterial toxin-antitoxin modules. The His66Tyr mutant of Doc (Doc super(H66Y)) was crystallized in space group...

8/3,K/2 (Item 2 from file: 24) Links

Fulltext available through: STIC Full Text Retrieval Options

CSA Life Sciences Abstracts

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0003013616 IP Accession No: 7288149

The yefM-yoeB Toxin-Antitoxin Systems of Escherichia coli and Streptococcus pneumoniae: Functional and Structural Correlation

Nieto, Concha; Cherny, Izhack; Khoo, Seok Kooi; de Lacoba, Mario Garcia; Chan, Wai Ting; Yeo, Chew Chieng; Gazit, Ehud; Espinosa, Manuel Centro de Investigaciones Biologicas, CSIC, Madrid, Spain. Department of Molecular Microbiology and Biotechnology, Tel Aviv University, Tel Aviv 69978, Israel. Department of Biotechnology, Malaysia University of Science and Technology, Petaling Jaya, Malaysia

Journal of Bacteriology , v 189 , n 4 , p 1266-1278 , February 2007

Publication Date: 2007

Publisher: American Society for Microbiology, 1752 N Street N.W. Washington, DC 20036 USA, [URL:<http://www.asm.org/>]

Document Type: Journal Article

Record Type: Abstract

Language: English

Summary Language: English

ISSN: 0021-9193

Electronic Issn: 1098-5530

File Segment: Bacteriology Abstracts (Microbiology B)

The yefM-yoeB Toxin-Antitoxin Systems of Escherichia coli and Streptococcus pneumoniae: Functional and Structural Correlation

...Cherny, Izhack; Khoo, Seok Kooi; de Lacoba, Mario Garcia; Chan, Wai Ting; Yeo, Chew Chieng; Gazit, Ehud; Espinosa, Manuel

Abstract:

Toxin-antitoxin loci belonging to the yefM-yoeB family are located in the chromosome or in... locus of Streptococcus pneumoniae, and these genes encode bona fide antitoxin (YefM sub(Spn)) and toxin (YoeB sub(Spn)) products. We showed that overproduction of YoeB sub(Spn) is toxic to... homologous, whereas the antitoxins appeared to be specifically designed for each bacterial locus; thus, the toxin-antitoxin interactions were adapted to the different bacterial environmental conditions. Both structural features, folding and...

8/3,K/3 (Item 3 from file: 24) Links

Fulltext available through: STIC Full Text Retrieval Options

CSA Life Sciences Abstracts

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0002893868 IP Accession No: 6517911

The YoeB Toxin Is a Folded Protein That Forms a Physical Complex with the Unfolded YefM Antitoxin: Implications for a structural-based differential stability of toxin-antitoxin systems

Cherny, Izhack; Rockah, Liat; Gazit, Ehud Department of Molecular Microbiology and Biotechnology, George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel

Aviv 69978, Israel

Journal of Biological Chemistry , v 280 , n 34 , p 30063-30072 , August 2005

Publication Date: 2005

Publisher: American Society for Biochemistry and Molecular Biology, 9650 Rockville Pike Bethesda MD 20814-3996 USA, [mailto:asbmb@asbmb.faseb.org], [URL:http://www.jbc.org]

Document Type: Journal Article

Record Type: Abstract

Language: English

Summary Language: English

ISSN: 0021-9258

Electronic ISSN: 1083-351X

File Segment: Bacteriology Abstracts (Microbiology B); Genetics Abstracts

The YoeB Toxin Is a Folded Protein That Forms a Physical Complex with the Unfolded YefM Antitoxin: Implications for a structural-based differential stability of toxin-antitoxin systems

Cherny, Izhack; Rockah, Liat; Gazit, Ehud

Abstract:

The chromosomal YoeB-YefM toxin-antitoxin module common to numerous strains of bacteria is presumed to have a significant role... ..protein, as we previously reported for the Phd antitoxin in the P1 phage Doc-Phd toxin-antitoxin system. Here we report the purification and structural properties of the YoeB toxin and present physical evidence for the existence of a tight YoeB.YefM polypeptide complex in... ..physical complex between the proteins. Near- and far-UV circular dichroism spectroscopy of the purified toxin revealed that, similar to the Doc toxin, YoeB is a well-folded protein. Thermal denaturation experiments confirmed the conformational stability of the YoeB toxin, which underwent reversible thermal unfolding at temperatures up to 56 degree C. The thermodynamic features of the toxin-antitoxin complex were similar. Taken together, our results support the notion of a correlation between differential physiological and structural stability in toxin-antitoxin modules.

Identifiers: YoeB toxin; YoeM toxin

Subj Catg:

8/3,K/4 (Item 1 from file: 50) Links

Fulltext available through: STIC Full Text Retrieval Options

CAB Abstracts

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0008636224 CAB Accession Number: 20043072465

The role of *Bacillus thuringiensis* Cry1C and Cry1E separate structural domains in the interaction with *Spodoptera littoralis* gut epithelial cells.

Avisar, D.; Keller, M.; Gazit, E.; Prudovsky, E.; Sneh, B.; Zilberstein, A.

Author email address: aviah@post.tau.ac.il

Department of Plant Sciences, George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv 69978, Israel.

Journal of Biological Chemistry vol. 279 ( 16 ): p.15779-15786

Publication Year: 2004

ISSN: 0021-9258

Digital Object Identifier: 10.1074/jbc.M312597200

Publisher: American Society for Biochemistry and Molecular Biology Inc Bethesda , USA

Language: English Record Type: Abstract

Document Type: Journal article

... and lower K SUB d than Cry1C domain II and further supported the existence of toxin multisite interactions. Competitive binding assays were used to estimate the sequence of interaction events. Cry1C... .. three domains specifically interact with the epithelial cell membrane. The folding of the three-domain toxin probably

antitoxintoxin.txt

dictates the sequence of interaction events.

Avisar, D.; Keller, M.; Gazit, E.; Prudovsky, E.; Sneh, B.; Zilberstein, A.

8/3,K/5 (Item 2 from file: 50) Links

Fulltext available through: STIC Full Text Retrieval Options

CAB Abstracts

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0007654000 CAB Accession Number: 19981112254

The structure and organization within the membrane of the helices composing the pore-forming domain of *Bacillus thuringiensis* delta-endotoxin are consistent with an "umbrella-like" structure of the pore.

Gazit, E.; Rocca, P. la; Sansom, M. S. P.; Shai, Y.

Department of Biological Chemistry, Weizmann Institute of Science, Rehovot, 76100, Israel.

Proceedings of the National Academy of Sciences of the United States of America  
vol. 95 ( 21 ): p.12289-12294

Publication Year: 1998

ISSN: 0027-8424

Language: English Record Type: Abstract

Document Type: Journal article

... The relative affinities for membranes of peptides corresponding to the seven helices that compose the toxin pore-forming domain, their modes of membrane interaction, their structures within membranes, and their orientations...

Gazit, E.; Rocca, P. la; Sansom, M. S. P.; Shai, Y.

8/3,K/6 (Item 3 from file: 50) Links

Fulltext available through: STIC Full Text Retrieval Options

CAB Abstracts

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0007590985 CAB Accession Number: 19980504640

*Bacillus thuringiensis* cytolytic toxin associates specifically with its synthetic helices A and C in the membrane bound state. Implications for the assembly of oligomeric transmembrane pores.

Gazit, E.; Burshtein, N.; Ellar, D. J.; Sawyer, T.; Shai, Y.

Department of Membrane Research and Biophysics, Weizmann Institute of Science, Rehovot 76100, Israel.

Biochemistry (Washington) vol. 36 ( 49 ): p.15546-15554

Publication Year: 1997

ISSN: 0006-2960

Language: English Record Type: Abstract

Document Type: Journal article

*Bacillus thuringiensis* cytolytic toxin associates specifically with its synthetic helices A and C in the membrane bound state. Implications...

... corresponding to beta5, beta6, and beta7 strands, to a conserved nonhelical region of the CytA toxin of *B. thuringiensis* subsp. *israeliensis* (P SUP 149-170 ), to helices B and D, and... ... 149-170 and helix D bind the membrane weakly. Membrane permeation experiments suggested that CytA toxin exerts its activity by aggregation of several monomers. To learn about the structural elements that... ... the membrane. Taken together, these results provide further support for the suggestion that the CytA toxin self-assembles within membrane and that helices A and C are major structural elements involved in the membrane interaction and intermolecular assembly of the toxin.

Gazit, E.; Burshtein, N.; Ellar, D. J.; Sawyer, T.; Shai, Y.

8/3,K/7 (Item 4 from file: 50) Links



antitoxintoxin.txt

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CAB Abstracts

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0006949830 CAB Accession Number: 19950500311

Structural characterization, membrane interaction, and specific antibody assembly within phospholipid membranes of hydrophobic segments from *Bacillus thuringiensis* var. *israelensis* cytolytic toxin.

Gazit, E.; Shai, Y.

Department of Membrane Research and Biophysics, Weizmann Institute of Science, Rehovot 76100, Israel.

Biochemistry (Washington) vol. 32 ( 46 ): p.12363-12371

Publication Year: 1993

ISSN: 0006-2960

Language: English Record Type: Abstract

Document Type: Journal article

... specific antibody assembly within phospholipid membranes of hydrophobic segments from *Bacillus thuringiensis* var. *israelensis* cytolytic toxin.

The *B. thuringiensis* subsp. *israelensis* (Bti) cytolytic toxin is hypothesized to exert its toxic activity via pore formation in the cell membrane as a result of the aggregation of several monomers. To gain insight into the toxin's mode of action, 2 putative hydrophobic 22 amino acid peptides were synthesized and characterized...

...helix-2), and the other to amino acids 50-71 (termed helix-1) of the toxin. Circular dichroism spectroscopy revealed that both segments adopt high alpha-helical content in the hydrophobic... for helices-1 and -2 in the assembly and in the pore formation by Bti toxin.

Gazit, E.; Shai, Y.

8/3,K/8 (Item 1 from file: 98) Links

General Sci Abs

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03808148 H.W. Wilson Record Number: BGS198058148

The structure and organization within the membrane of the helices composing the pore-forming domain of *Bacillus thuringiensis* d-endotoxin are consistent with an "umbrella-like" structure of the pore.

Gazit, Ehud

La Rocca, Paolo; Sansom, Mark S. P

Proceedings of the National Academy of Sciences of the United States of America (Proc Natl Acad Sci U S A) v. 95 no21 (Oct. 13 '98) p. 12289-94

Special Features: bibl il ISSN: 0027-8424

Language: English

Country Of Publication: United States

Gazit, Ehud

Abstract: ...the results suggest an "umbrella" model for the structure of the pores formed by the toxin. The findings also support previous suggestions that the  $\alpha 7$  helix may function as the binding...

Descriptors:

*Bacillus thuringiensis* toxin; Membrane fusion

8/3,K/9 (Item 2 from file: 98) Links

General Sci Abs

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02754244 H.W. Wilson Record Number: BGS194004244

Structural characterization, membrane interaction, and specific assembly within phospholipid membranes of hydrophobic segments from *Bacillus thuringiensis* var. *israelensis* cytolytic toxin.

Gazit, Ehud  
Shai, Yechiel  
Biochemistry (American Chemical Society) ( Biochemistry ) v. 32 (Nov. 23 '93) p.  
12363-71  
Document Type: Feature Article  
Special Features: bibl il ISSN: 0006-2960  
Language: English  
Country Of Publication: United States  
...and specific assembly within phospholipid membranes of hydrophobic segments from  
Bacillus thuringiensis var. israelensis cytolytic toxin.

Gazit, Ehud

Abstract: The Bacillus thuringiensis var. israelensis (Bti) cytolytic toxin is hypothesized to exert its toxic activity via pore formation in the cell membrane as a result of the aggregation of several monomers. To gain insight into the toxin's mode of action, 2 putative hydrophobic 22 amino acid peptides were synthesized and characterized... Ellar, D. J., & Chilcott, C. N. (1988) J. Mol. Biol. 202, 527-535} of the toxin. Circular dichroism spectroscopy revealed that both segments adopt high  $\alpha$ -helical content in a hydrophobic... for helices-1 and -2 in the assembly and in the pore formation by Bti toxin. Copyright 1993, American Chemical Society. .

Descriptors:  
Bacillus thuringiensis toxin; Membranes (Biology...

8/3,K/10 (Item 3 from file: 98) Links  
General Sci Abs  
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02514029 H.W. Wilson Record Number: BGS193014029  
Structural and functional characterization of the  $\alpha 5$  segment of Bacillus thuringiensis d-endotoxin.

Gazit, Ehud  
Shai, Yechiel  
Biochemistry (American Chemical Society) ( Biochemistry ) v. 32 (Apr. 6 '93) p.  
3429-36  
Document Type: Feature Article  
Special Features: bibl il ISSN: 0006-2960  
Language: English  
Country Of Publication: United States  
Gazit, Ehud

Descriptors:  
Bacillus thuringiensis toxin; Proteins...

8/3,K/11 (Item 1 from file: 143) Links  
Biol. & Agric. Index  
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1068609 H.W. Wilson Record Number: BBAI99041346  
The Doc toxin and Phd antidote proteins of the bacteriophage P1 plasmid addiction system form a heterotrimeric complex

Gazit, Ehud  
Sauer, Robert T  
The Journal of Biological Chemistry v. 274 no24 (June 11 1999) p. 16813-18  
Document Type: Feature Article ISSN: 0021-9258  
The Doc toxin and Phd antidote proteins of the bacteriophage P1 plasmid addiction system form a heterotrimeric complex  
Gazit, Ehud

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8/3,K/12 (Item 1 from file: 399) Links  
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147516306 CA: 147(25)516306m JOURNAL  
Structural and Thermodynamic Characterization of the Escherichia coli RelBE  
Toxin-Antitoxin System: Indication for a Functional Role of Differential Stability  
Author: Cherny, Izhack; Overgaard, Martin; Borch, Jonas; Bram, Yaron; Gerdes, Kenn;  
Gazit, Ehud  
Location: Department of Molecular Microbiology and Biotechnology, George S. Wise  
Faculty of Life Sciences, Tel Aviv University, 69978, Tel Aviv-Jaffa, Israel  
Journal: Biochemistry  
Date: 2007  
Volume: 46 Number: 43 Pages: 12152-12163  
CODEN: BICAW  
ISSN: 0006-2960  
Publisher Item Identifier: 0006-2960(70)01037-1  
Language: English  
Publisher: American Chemical Society

8/3,K/13 (Item 2 from file: 399) Links  
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147482564 CA: 147(23)482564b CONFERENCE PROCEEDING  
Bacterial toxin-antitoxin systems as targets for the development of novel  
antibiotics  
Author: Alonso, Juan C.; Balsa, Dolores; Cherny, Izhack; Christensen, Susanne K.;  
Espinosa, Manuel; Francuski, Djordje; Gazit, Ehud; Gerdes, Kenn; Hitchin, Ed;  
Martin, M. Teresa; Nieto, Concepcion; Overweg, Karin; Pellicer, Teresa; Saenger,  
Wolfram; Welfle, Heinz; Welfle, Karin; Wells, Jerry  
Location: Department of Microbial Biotechnology, Centro Nacional de Biotecnologia,  
CSIC, Madrid, Spain, 28049  
Journal: Enzyme-Mediated Resist. Antibiot.  
Editor: Bonomo, Robert A. (Ed), Tolmasky, Marcelo (Ed),  
Date: 2007  
Pages: 313-329  
CODEN: 69JIC6  
Language: English  
Publisher: American Society for Microbiology , Washington, D. C

8/3,K/14 (Item 3 from file: 399) Links  
CA SEARCH(R)  
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142367629 CA: 142(20)367629m PATENT  
Antibacterial agents disrupting toxin-antitoxin binding and methods of identifying  
and utilizing such agents  
Inventor (Author): Gazit, Ehud; Cherny, Izhack  
Location: Israel  
Assignee: Ramot at Tel Aviv University Ltd.  
Patent: PCT International ; WO 200531362 A2 Date: 20050407  
Application: WO 2004IL898 (20040927) \*US 2003PV507488 (20031002) \*US 2004PV550334  
(20040308)  
Pages: 108 pp.  
CODEN: PIXXD2  
Language: English  
Patent Classifications:  
Class: G01N-033/68A

antitoxintoxin.txt

Designated Countries: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NA; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM; ZW  
Designated Regional: BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ; TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

8/3,K/15 (Item 4 from file: 399) Links

Fulltext available through: STIC Full Text Retrieval Options

CA SEARCH(R)

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140334320 CA: 140(21)334320j

JOURNAL

The YefM Antitoxin Defines a Family of Natively Unfolded Proteins: Implications as a Novel Antibacterial Target

Author: Cherny, Izhack; Gazit, Ehud

Location: George S. Wise Faculty of Life Sciences, Department of Molecular Microbiology and Biotechnology, Tel-Aviv University, 69978, Tel-Aviv, Israel

Journal: J. Biol. Chem.

Date: 2004

Volume: 279 Number: 9 Pages: 8252-8261

CODEN: JBCHA3

ISSN: 0021-9258

Language: English

Publisher: American Society for Biochemistry and Molecular Biology

8/3,K/16 (Item 5 from file: 399) Links

Fulltext available through: STIC Full Text Retrieval Options

CA SEARCH(R)

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130048562 CA: 130(5)48562q

JOURNAL

The structure and organization within the membrane of the helixes composing the pore-forming domain of *Bacillus thuringiensis* .delta.-endotoxin are consistent with an "umbrella-like" structure of the pore

Author: Gazit, Ehud; La Rocca, Paolo; Sansom, Mark S. P.; Shai, Yechiel

Location: Department of Biological Chemistry, Weizmann Institute of Science, 76100, Rehovot, Israel

Journal: Proc. Natl. Acad. Sci. U. S. A.

Date: 1998

Volume: 95 Number: 21 Pages: 12289-12294

CODEN: PNASA6

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Publisher: National Academy of Sciences

8/3,K/17 (Item 6 from file: 399) Links

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128044828 CA: 128(5)44828s

JOURNAL

*Bacillus thuringiensis* Cytolytic Toxin Associates Specifically with Its Synthetic Helixes A and C in the Membrane Bound State. Implications for the Assembly of Oligomeric Transmembrane Pores

Author: Gazit, Ehud; Burshtein, Noga; Ellar, David J.; Sawyer, Trevor; Shai, Yechiel

antitoxintoxin.txt

Location: Department of Membrane Research and Biophysics, Weizmann Institute of Science, 76100, Rehovot, Israel  
Journal: Biochemistry  
Date: 1997  
Volume: 36 Number: 49 Pages: 15546-15554  
CODEN: BICHAW  
ISSN: 0006-2960  
Publisher Item Identifier: 0006-2960(97)00758-7  
Language: English  
Publisher: American Chemical Society

8/3,K/18 (Item 7 from file: 399) Links  
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123027507 CA: 123(3)27507r CONFERENCE PROCEEDING  
Membrane interaction and hemolytic activity of the .alpha.5 helix of .delta.-endotoxin  
Author: Gazit, Ehud; Shai, Yechiel  
Location: Department Membrane Research and Biophysics, Weizmann Institute Science Rehovot, 76100, Israel  
Journal: Recent Adv. Mol. Biochem. Res. Proteins, Proc. IUBMB Symp. Protein Struct. Funct.  
Editor: Wei, Yau-huei (Ed), Chen, Ching-san (Ed), Su, Jong-ching (Ed),  
Date: 1993  
Pages: 145-53  
CODEN: 61HNAL  
Language: English  
Meeting Date: 920000  
Publisher: World Sci. , Singapore, Singapore

8/3,K/19 (Item 8 from file: 399) Links  
Fulltext available through: STIC Full Text Retrieval Options  
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122003545 CA: 122(1)3545e JOURNAL  
The .alpha.-5 segment of Bacillus thuringiensis .delta.-endotoxin: in vitro activity, ion channel formation and molecular modeling  
Author: Gazit, Ehud; Bach, Diana; Kerr, Ian D.; Sansom, Mark S. P.; Chejanovsky, Nor; Shai, Yechiel  
Location: Dep. Membrane Res. Biophys., Weizmann Inst. Sci., 76100, Rehovot, Israel  
Journal: Biochem. J.  
Date: 1994  
Volume: 304 Number: 3 Pages: 895-902  
CODEN: BIJOAK  
ISSN: 0264-6021  
Language: English

8/3,K/20 (Item 9 from file: 399) Links  
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118163181 CA: 118(17)163181d JOURNAL  
Structural and functional characterization of the .alpha.5 segment of Bacillus thuringiensis .delta.-endotoxin  
Author: Gazit, Ehud; Shai, Yechiel  
Location: Dep. of Membrane Res. Biophys., Weizmann Inst. Sci., 76100, Rehovot, Israel

Journal: Biochemistry  
Date: 1993  
Volume: 32 Number: 13 Pages: 3429-36  
CODEN: BICHAW  
ISSN: 0006-2960  
Language: English

8/3,K/21 (Item 1 from file: 185) Links  
Fulltext available through: STIC Full Text Retrieval Options  
Zoological Record Online(R)

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04966596 BIOSIS No. 14008048631

The role of *Bacillus thuringiensis* Cry1C and Cry1E separate structural domains in the interaction with *Spodoptera littoralis* gut epithelial cells.

Authors: Avisar, Dror; Keller, Menahem; Gazit, Ehud; Prudovsky, Evgenia; Sneh, Baruch; Zilberstein, Aviah (a)  
Authors Address: (a) Tel Aviv Univ, George S Wise Fac Life Sci, IL-69978 Tel Aviv; Israel aviah@post.tau.ac.il  
Source: Journal of Biological Chemistry 279(16), April 16 2004: 15779-15786. [Print]

Document Type: Article  
ISSN: 0021-9258  
Languages: English Summary Languages: English  
Record Type: Abstract  
Authors: Avisar, Dror; Keller, Menahem; Gazit, Ehud; Prudovsky, Evgenia; Sneh, Baruch; Zilberstein, Aviah...

Abstract: ...higher Bmax and lower Kd than Cry1C domain II and further supported the existence of toxin multisite interactions. Competitive binding assays were used to estimate the sequence of interaction events. Cry1C... ...three domains specifically interact with the epithelial cell membrane. The folding of the three-domain toxin probably dictates the sequence of interaction events.

8/3,K/22 (Item 1 from file: 149) Links  
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03335715 Supplier Number: 163707106 (USE FORMAT 7 OR 9 FOR FULL TEXT )  
The yefM-yoeB toxin-antitoxin systems of *Escherichia coli* and *Streptococcus pneumoniae*: functional and structural correlation.(Author abstract)

Nieto, Concha; Cherny, Izhack; Khoo, Seok Kooi; de Lacoba, Mario Garcia; Chan, Wai Ting; Yeo, Chew Chieng; Gazit, Ehud; Espinosa, Manuel  
Journal of Bacteriology , 189 , 3-4 , 1266(13)  
Feb ,  
2007

Document Type: Author abstract Publication Format: Magazine/Journal  
ISSN: 0021-9193  
Language: English  
Record Type: Abstract Target Audience: Academic  
The yefM-yoeB toxin-antitoxin systems of *Escherichia coli* and *Streptococcus pneumoniae*: functional and structural correlation.(Author abstract)

...Gazit, Ehud  
Author Abstract: Toxin-antitoxin loci belonging to the yefM-yoeB family are located in the chromosome or in... ...of *Streptococcus pneumoniae*, and these genes encode bona fide antitoxin (Yef(M.sub.Spn)) and toxin (Yoe(B.sub.Spn)) products. We showed that overproduction of Yoe(B.sub.Spn),, is... ...homologous, whereas the antitoxins appeared to be specifically designed for each bacterial locus; thus, the toxin-antitoxin interactions were adapted to the different bacterial environmental conditions. Both structural features, folding and...

# antitoxintoxin.txt

Text:

```
? d s
Set      Items  Description
S1        276    S E1-E4
S2         42    S S1 AND TOXIN
S3         28    S E1-E3
S4         22    S S3 AND ANTITOXIN
S5         42    S S2
S6         42    S S5 AND TOXIN
S7         42    S S6 AND TOXIN
S8         22    RD (unique items)
```